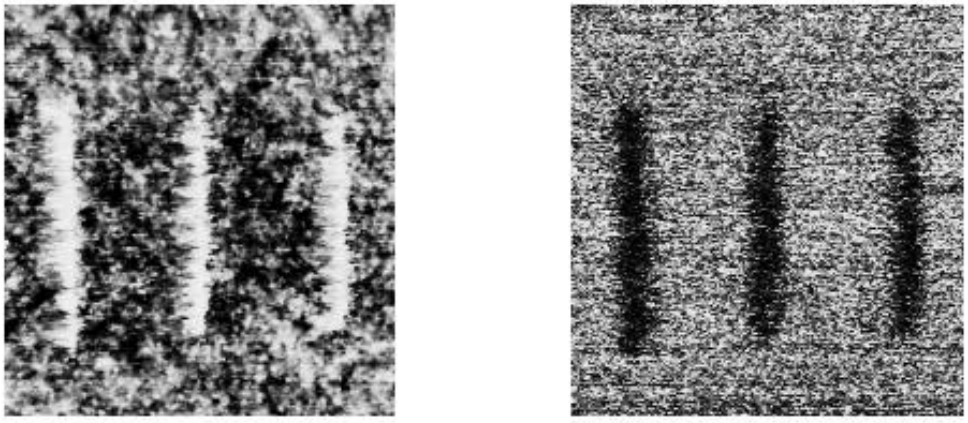
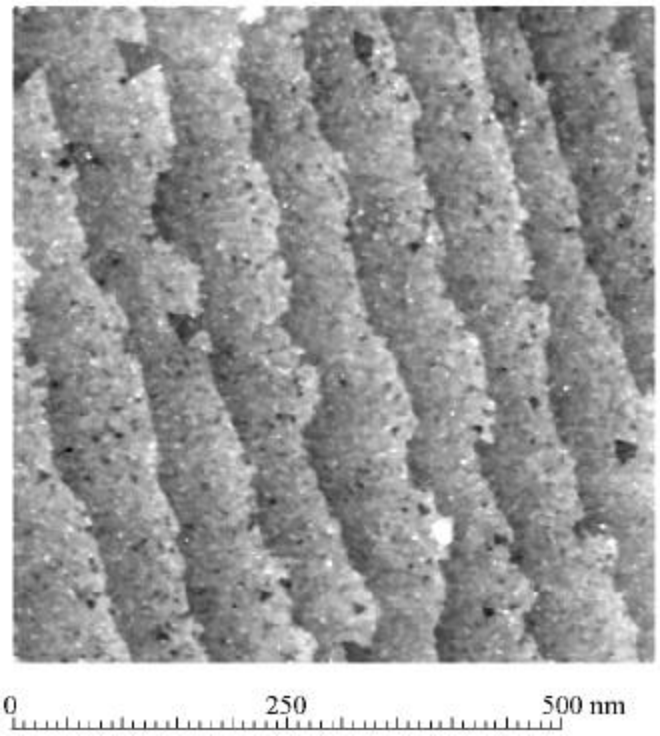
Nano-Lithography onto Crystalline Silicon

- Si(100)
- Si(111)

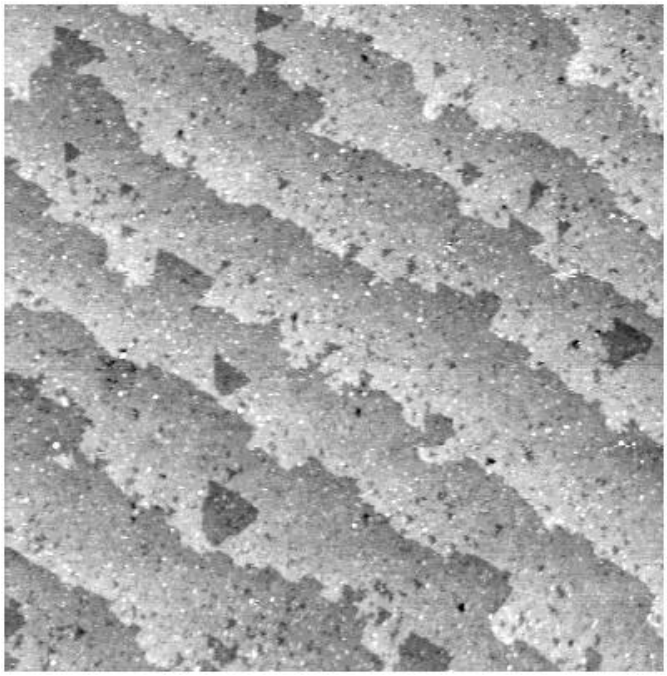


(a) (b)

Nano-Lithography onto Si(100) Performed by the STM Tip.
(simultaneously topography(a) and tunneling barrier height(b))
("writing" conditions: V_{tip}=-8 V, I_t=50 nA, writing speed: 8nm/s)



STM Results: Surface Topography of a *p*-type Si(111) Sample.
(3.1 Å Height Monoatomic Steps)



STM Results: Surface Topography of a *p*-type Si(111) Sample.
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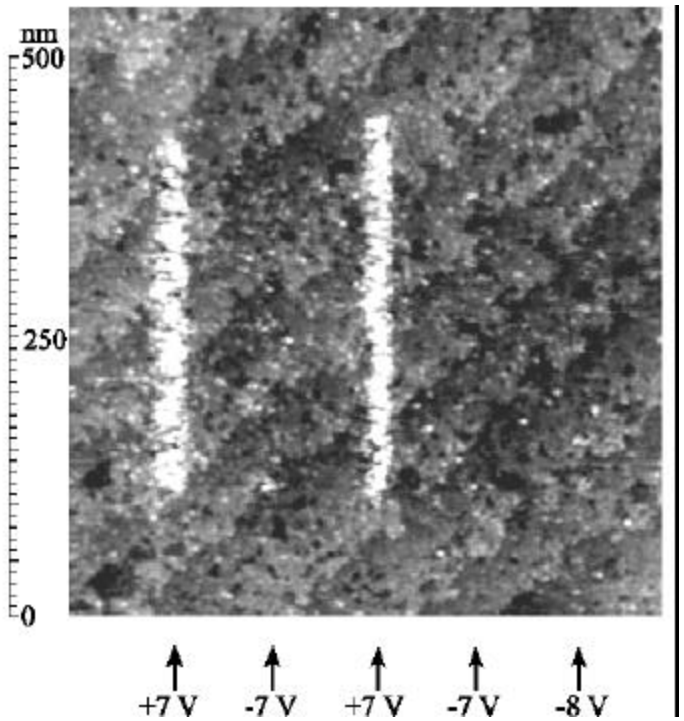
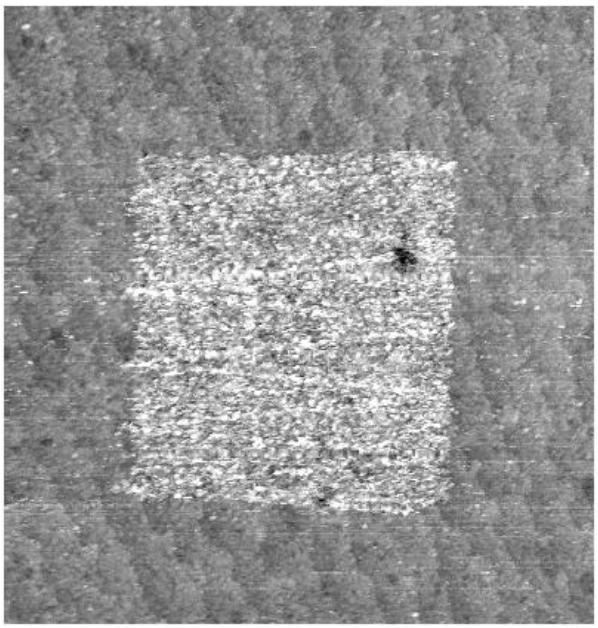
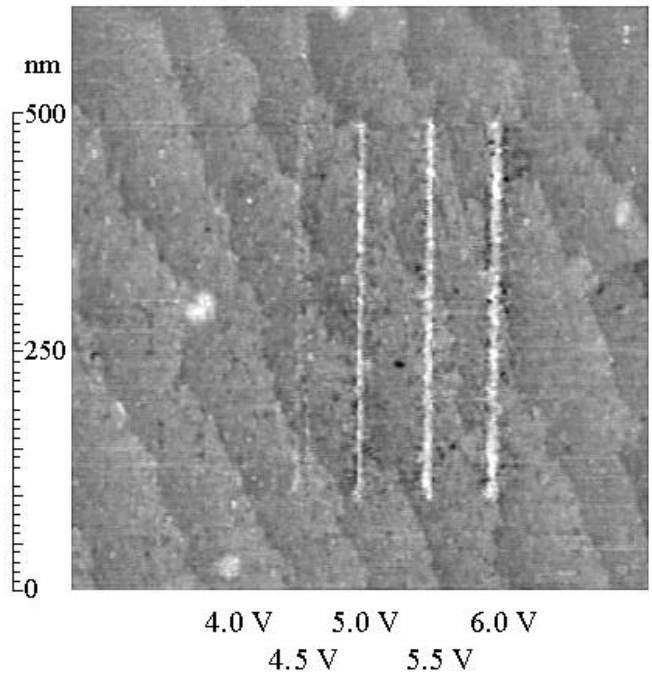
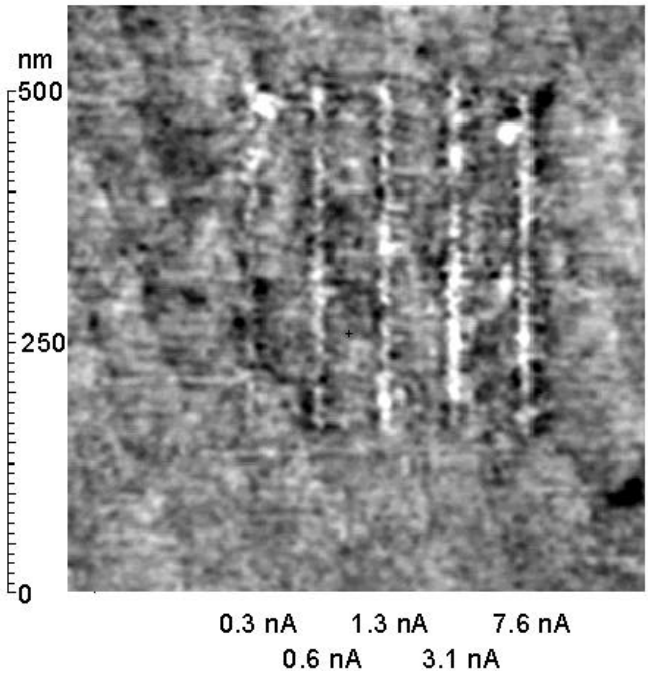


STM-"Writing" Lines Dependence of the Bias Applied to the Si(111) Sample.

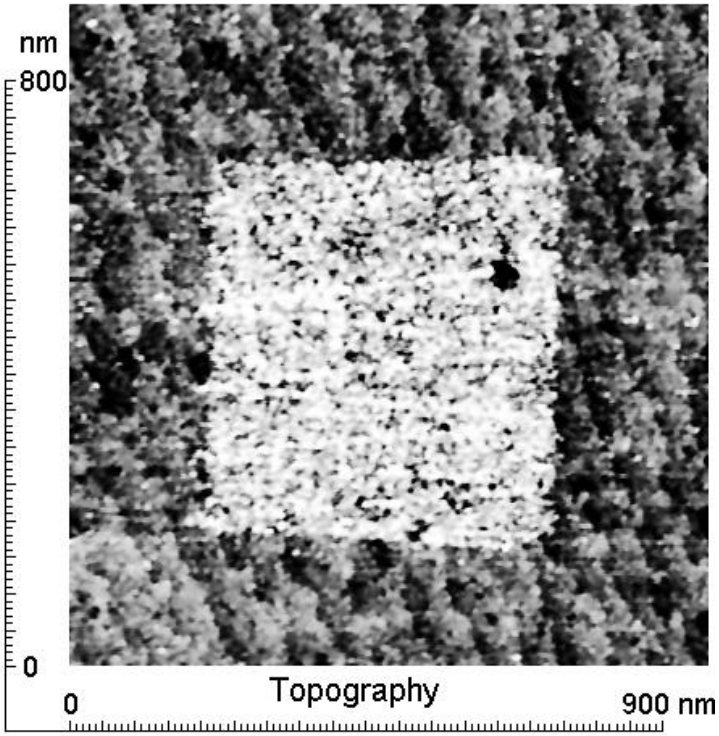


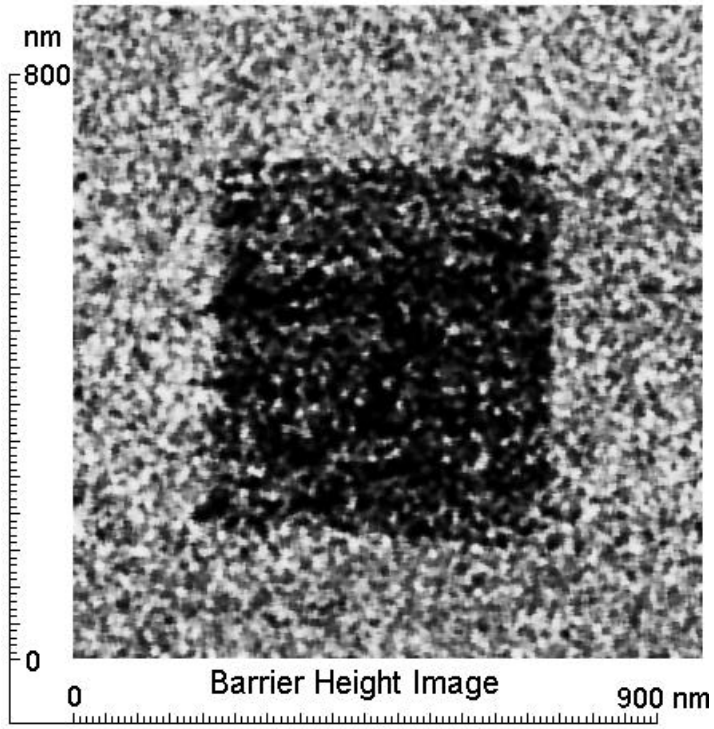
STM Nano-Patterning onto Si(111).



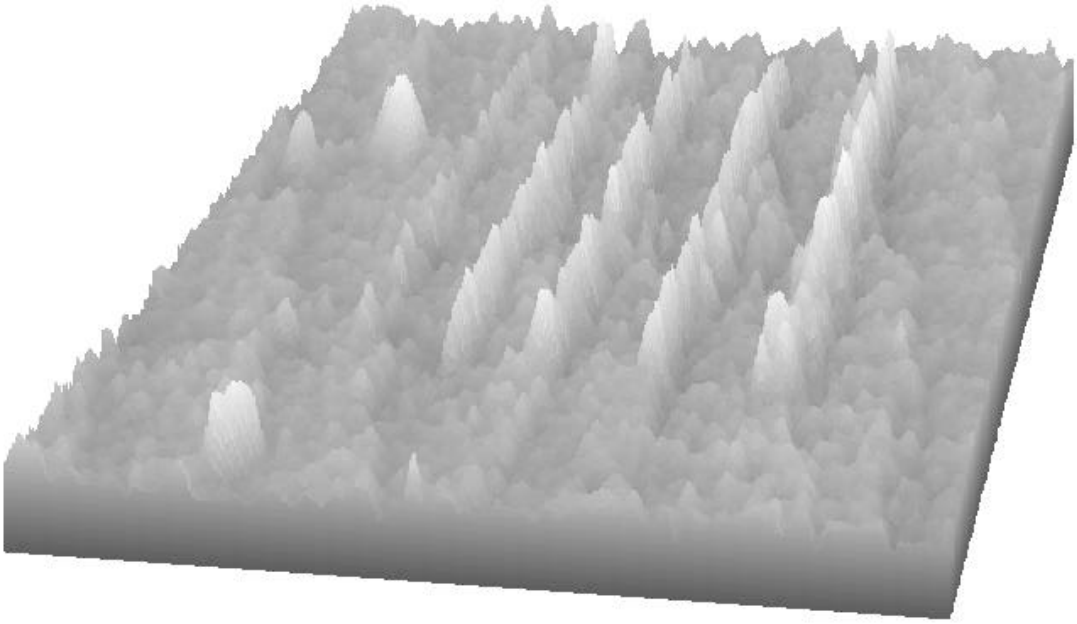


Influence of Parameters Variation in STM-"Writing" Conditions onto Si(111).

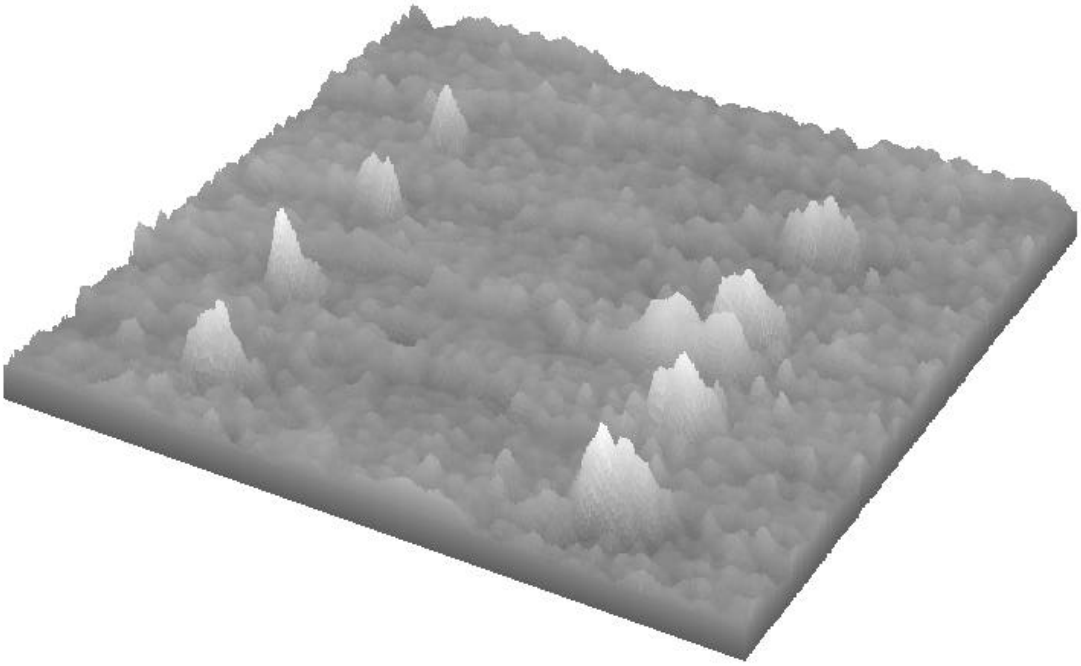




Nano-Patterning onto Si(111) Performed by the STM Tip.
(simultaneously topography and tunneling barrier height)



3-D STM-“Written” Lines onto Si(111).



3-D STM-“Written” Dots onto Si(111).